

#### UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

#### Region 6 Laboratory

Environmental Services Branch 10625 Fallstone Road, Houston, TX 77099 Phone: (281)983-2100 Fax: (281)983-2248

#### **DRAFT Final Analytical Report**

Site NameDimock Residential Groundwater Site
Sample Collection Date(s) 03/05/12 - 03/08/12
Contact Cynthia Caporale (3EA21)
Report Date03/16/12
Project # 12SF073
Work Order(s) 1203005
1203007
1203012

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ABN Glycols

#### **Report Narrative**

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

Reporting limits are adjusted for sample size and matrix interference.

Report Approvals:	
Richard McMillin Region 6 Laboratory Manager	David Neleigh Region 6 Laboratory Branch Chief

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY



#### Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road Houston, Texas 77099

#### Sample Receipt and Disposal

Site Name: Dimock Residential Groundwater Site	Project Number: 12SF073
Data Management Coordinator: Christy Warren	
Data Management Coordinator Signature	Date
Date Transmitted:/	
Please have the U.S. EPA Project Manager/Officer call comments or questions.	the Data Management Coordinator at 3-2137 for any
Please sign and date this form below and return it with	any comments to:
Christy Warren Data Management Coordinator Region 6 Laboratory 6MD-HS  Received by and Date	
Comments:	
The laboratory routinely disposes of samples 90 days at hold these samples in custody longer than 90 days, plea	fter all analyses have been completed. If you have a need to see sign below.
Signature	Date
Please provide a reason for holding:	



#### **Environmental Protection Agency**

# **Region 6 Laboratory**

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#### ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	<b>Date Collected</b>	<b>Date Received</b>
FB19	1203005-01	Liquid	3/5/12 9:36	03/07/12 09:50
HW56	1203005-02	Liquid	3/5/12 16:54	03/07/12 09:50
HW60	1203005-03	Liquid	3/5/12 12:25	03/07/12 09:50
FB20	1203007-01	Liquid	3/6/12 14:00	03/08/12 09:00
HW61	1203007-02	Liquid	3/6/12 15:42	03/08/12 09:00
HW61-P	1203007-03	Liquid	3/6/12 16:00	03/08/12 09:00
HW61z	1203007-04	Liquid	3/7/12 15:42	03/08/12 09:00
FB21	1203012-01	Liquid	3/8/12 13:38	03/09/12 09:30
HW50	1203012-02	Liquid	3/8/12 15:09	03/09/12 09:30

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Batch: B2C0702

Sample Type: Liquid

Report Format: R6\_Chem(18)

#### **Environmental Protection Agency**

# **Region 6 Laboratory**

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# Glycols by Direct Aqueous Injection Modified 8270 - GC/MS

Lab ID: 1203005-01

Date Collected: 03/05/12 Sample Volume: 1 ml

Sample Qualifiers: Analyst: kws

Station ID: FB19

#### **Targets**

Analyte (CAS Number)	Result mg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Propylene glycol (57-55-6)	U		0.5	1	03/09/12	03/09/12
Ethylene glycol (107-21-1)	U		0.5	11		īī.
						kws

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# **Region 6 Laboratory**

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# Glycols by Direct Aqueous Injection Modified 8270 - GC/MS

Lab ID: 1203005-02

Batch: B2C0702 Date Collected: 03/05/12 Sample Type: Liquid Sample Volume: 1 ml

Sample Qualifiers: Analyst: kws

Station ID: HW56

#### **Targets**

Analyte (CAS Number)	Result mg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Propylene glycol (57-55-6)	U		0.5		03/09/12	03/09/12
Ethylene glycol (107-21-1)	U		0.5	11	"	111

KWS

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Report Format: R6\_Chem(18)



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# **Region 6 Laboratory**

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# Glycols by Direct Aqueous Injection Modified 8270 - GC/MS

Lab ID: 1203005-03

Batch: B2C0702 Date Collected: 03/05/12 Sample Type: Liquid Sample Volume: 1 ml

Sample Qualifiers: Analyst: kws

Station ID: HW60

#### **Targets**

Analyte (CAS Number)	Result mg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Propylene glycol (57-55-6)	U		0.5	I	03/09/12	03/09/12
Ethylene glycol (107-21-1)	U		0.5	"	"	"

kws

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#### **Environmental Protection Agency**

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# Glycols by Direct Aqueous Injection Modified 8270 - GC/MS

Lab ID: 1203007-01 Station ID: FB20

Batch: B2C0702 Date Collected: 03/06/12 Sample Type: Liquid Sample Volume: 1 ml

Sample Qualifiers: Analyst: kws

#### **Targets**

Analyte (CAS Number)	Result mg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Propylene glycol (57-55-6)	U		0.5	I	03/09/12	03/09/12
Ethylene glycol (107-21-1)	U		0.5		"	**

kws

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#### **Environmental Protection Agency**

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# Glycols by Direct Aqueous Injection Modified 8270 - GC/MS

Lab ID: 1203007-02

Batch: B2C0702 Date Collected: 03/06/12 Sample Type: Liquid Sample Volume: 1 ml

Sample Qualifiers: Analyst: kws

Station ID: HW61

#### **Targets**

Analyte (CAS Number)	Result mg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Propylene glycol (57-55-6)	U		0.5	I	03/09/12	03/09/12
Ethylene glycol (107-21-1)	U		0.5	"	"	"

kws

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#### **Environmental Protection Agency**

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# Glycols by Direct Aqueous Injection Modified 8270 - GC/MS

Lab ID: 1203007-03

ABN Glycols

Station ID: HW61-P

Batch: B2C0702 Date Collected: 03/06/12 Sample Type: Liquid Sample Volume: 1 ml

Sample Qualifiers: Analyst: kws

#### **Targets**

Analyte (CAS Number)	Result mg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Propylene glycol (57-55-6)	U		0.5	I	03/09/12	03/09/12
Ethylene glycol (107-21-1)	U		0.5		"	**

kws

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#### **Environmental Protection Agency**

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# Glycols by Direct Aqueous Injection Modified 8270 - GC/MS

Lab ID: 1203007-04 Station ID: HW61z

Batch: B2C0702 Date Collected: 03/07/12 Sample Type: Liquid Sample Volume: 1 ml

Sample Qualifiers: Analyst: kws

#### **Targets**

Analyte (CAS Number)	Result mg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Propylene glycol (57-55-6)	U		0.5	1	03/09/12	03/09/12
Ethylene glycol (107-21-1)	U		0.5	11	"	**

kws

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Batch: B2C0702

Sample Type: Liquid

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#### **Environmental Protection Agency**

# **Region 6 Laboratory**

10625 Fallstone Road, Houston, TX 77099 Phone:(281)983-2100 Fax:(281)983-2248

# Glycols by Direct Aqueous Injection Modified 8270 - GC/MS

Lab ID: 1203012-01

Date Collected: 03/08/12 Sample Volume: 1 ml

Sample Qualifiers: Analyst: kws

Station ID: FB21

#### **Targets**

Analyte (CAS Number)	Result mg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Propylene glycol (57-55-6)	U		0.5	1	03/09/12	03/09/12
Ethylene glycol (107-21-1)	U		0.5	11	"	**

kws

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# **Region 6 Laboratory**

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# Glycols by Direct Aqueous Injection Modified 8270 - GC/MS

Lab ID: 1203012-02

Batch: B2C0702 Date Collected: 03/08/12 Sample Type: Liquid Sample Volume: 1 ml

Sample Qualifiers: Analyst: kws

Station ID: HW50

#### **Targets**

Analyte (CAS Number)	Result mg/L	Analyte Qualifiers	Reporting Limit	Dilution	Prepared	Analyzed
Propylene glycol (57-55-6)	U		0.5	I	03/09/12	03/09/12
Ethylene glycol (107-21-1)	U		0.5	11	"	"

kws

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# **Region 6 Laboratory**

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#### Glycols by Direct Aqueous Injection Modified 8270 - GC/MS - Quality Control

Batch: B2C0702 Sample Type: Liquid

#### Blank (B2C0702-BLK1)

Prepared: 3/9/2012 Analyzed: 3/9/2012

#### **Targets**

ANALYTE	Result mg/L	Analyte Reporting Qualifiers Limit	
Propylene glycol	U	0.5	
Ethylene glycol	U	0.5	

#### Blank (B2C0702-BLK2)

Prepared: 3/14/2012 Analyzed: 3/14/2012

#### **Targets**

ANALYTE	Result Analyte R mg/L Qualifiers	Reporting Limit
Propylene glycol	U	0.5
Ethylene glycol	0.5	0.5

#### LCS (B2C0702-BS1)

Prepared: 3/9/2012 Analyzed: 3/9/2012

#### **Targets**

ANALYTE	Result mg/L	Analyte Reporting Qualifiers Limit	Spike Level	%REC %REC Limits	
Propylene glycol	0.2	0.5		70-130	
Ethylene glycol	48.7	0.5	50.0	97.5 70-130	

#### LCS (B2C0702-BS2)

Prepared: 3/14/2012 Analyzed: 3/14/2012

#### **Targets**

ANALYTE	Result mg/L	Analyte Reporting Qualifiers Limit	Spike Level	%REC %REC Limits	
Propylene glycol	56.1	0.5	50.0	112 70-130	
Ethylene glycol	51.5	0.5	50.0	103 70-130	

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### **Region 6 Laboratory**

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#### Glycols by Direct Aqueous Injection Modified 8270 - GC/MS - Quality Control

Batch: B2C0702 Sample Type: Liquid

Matrix Spike (B2C0702-MS1)

**Source: 1203005-02** Prepared: 3/9/2012 Analyzed: 3/9/2012

**Targets** 

ANALYTE	Result mg/L	Analyte Reporting Qualifiers Limit	Spike Level	Source Result	%REC	%REC Limits	
Propylene glycol	46.3	0.5	50,0		92.6	70-130	
Ethylene glycol	46.8	0.5	50.0	0.07	93.4	70-130	

#### Matrix Spike Dup (B2C0702-MSD1)

**Source: 1203005-02** Prepared: 3/9/2012 Analyzed: 3/9/2012

**Targets** 

ANALYTE	7	Result mg/L	Analyte R Qualifiers					%REC Limits	RPD	RPD Limit
Propylene glycol		44.7		0.5	50.0		89.3	70-130	3.63	30
Ethylene glycol		46.5		0.5	50.0	0.07	92.8	70-130	0.60	30

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USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 3-030612-085615-0247

DateShipped: 3/6/2012 CarrierName: FedEx AirbillNo: 7981 3489 3053

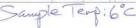
Case #: CT5928

Lab: EPA R6 Laboratory Lab Contact: Christy Warren Lab Phone: 2819832137

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB19	Aqueous/ Res	Grab	Ethylene Glycol, Ethylene Glycol	19052 (-NA- / 40mlGlassVial), 19053 (-NA- / 40mlGlassVial) (2)	FB19	03/05/2012 09:36	
HW56	Drinking Water/	Grab	Ethylene Glycol, Ethylene Glycol, Ethylene Glycol, Ethylene Glycol, Ethylene Glycol, Ethylene Glycol, Ethylene Glycol	19119 (-NA- / 40mlGlassVial), 19120 (-NA- /40mlGlassVial), 19138 (-NA- /40mlGlassVial), 19139 (-NA- /40mlGlassVial), 19140 (-NA- /40mlGlassVial), 19141 (-NA- /40mlGlassVial) (6)	HW56	03/05/2012 16:54	
HW60	Drinking Water/	Grab	Ethylene Glycol, Ethylene Glycol	19085 (-NA- / 40mlGlassVial), 19085 (-NA- / 40mlGlassVial) (2)	HW60	03/05/2012 12:25	
			2				

	Shipment for Case Complete? N
Sample(s) to be used for Lab QC: HW56	Samples Transferred From Chain of Custody #
Analysis Key	

tems/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
10	Redacted	3/6/12	Tsaigh Harris	37/12	9150						
£	1			. 4.							







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USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

No: 3-030712-111413-0253

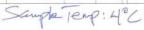
DateShipped: 3/7/2012 CarrierName: FedEx AirbillNo: 7981 4076 7688 Lab EPA R6 Laboratory Lab Contact: Christy Warren Lab Phone: 2819832137

Case #: CT5928

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB20	Aqueous/ 8	Grab	Ethylene Glycol, Ethylene Glycol	19242 (-NA- / 40mlGlassVial), 19243 (-NA- / 40mlGlassVial) (2)	FB20	03/06/2012 14:00	
HW61	Drinking Water/	Grab	Ethylene Glycol, Ethylene Glycol	19172 (-NA- / 40mlGlassVial), 19173 (-NA- / 40mlGlassVial) (2)	HW61	03/06/2012 15:42	
HW61-P	Drinking Water/	Grab	Ethylene Glycol, Ethylene Glycol	19216 (-NA- / 40mlGlassVial), 19217 (-NA- / 40mlGlassVial) (2)	HW61-P	03/06/2012 16:00	
HW61z	Drinking Water/	Grab	Ethylene Glycol, Ethylene Glycol	19198 (-NA- / 40mlGlassVial), 19199 (-NA- / 40mlGlassVial) (2)	HW61	03/06/2012 15:42	
		1,					
			<del></del>				

	Shipment for Case Complete? N
Special Instructions:	Samples Transferred From Chain of Custody #
Analysis Key	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Tim
3	R ed acc	3/7/12	Isaph	3/8/2	9:50						
-		-	()	1.12	,						
7											H









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#### USEPA CLP Generic COC (LAB COPY)

CHAIN OF CUSTODY RECORD

Case #: CT5928

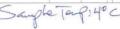
No: 3-030812-165546-0262

DateShipped: 3/8/2012 CarrierName: FedEx AirbillNo: 7981 4835 1266 Lab: EPA R6 Laboratory Lab Contact: Christy Warren Lab Phone: 2819832137

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB21	Aqueous/	Grab	Ethylene Glycol, Ethylene Glycol	18960 (-NA- / 40mlGlassVial), 18961 (-NA- / 40mlGlassVial) (2)	FB21	03/08/2012 13:38	
HW50	Drinking Water/	Grab	Ethylene Glycol, Ethylene Glycol	18999 (-NA- / 40mlGlassVial), 19000 (-NA- / 40mlGlassVial) (2)	HW50	03/08/2012 15:09	
		- 4					
		1					

	Shipment for Case Complete? N
Special Instructions;	Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
4	Redacted	3/8/12	Tsajah Harris	3/9/12	9:30						
4 1 1 -*5		10-	A	1.2	2						



# RINTED STATES

#### **Environmental Protection Agency**

### Region 6 Laboratory

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#### **Notes and Definitions**

A This sample was extracted at a single acid pH.

HTS Sample was prepared and/or analyzed past recommended holding time. Concentrations should be

considered minimum values.

AES Atomic Emission Spectrometer

CVAA Cold Vapor Atomic Absorption

ECD Electron Capture Detector

GC Gas Chromatograph

GFAA Graphite Furnace Atomic Absorption

ICP Inductively Coupled Plasma

MS Mass Spectrometer

NA Not Applicable

NPD Nitrogen Phosphorous Detector

NR Not Reported

TCLP Toxicity Characteristic Leaching Procedure

U Undetected

# Out of QC limits

Report Format: R6 Chem(18)

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.

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